

100

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**Figure 1**

Diagram illustrating the experimental setup for measuring the effect of temperature on the rate of reaction between hydrogen peroxide and potassium iodide.

The diagram shows a test tube containing a mixture of hydrogen peroxide ( $H_2O_2$ ) and potassium iodide ( $KI$ ). The test tube is placed in a water bath at a specific temperature ( $T^\circ C$ ). A gas syringe is connected to the test tube to measure the volume of oxygen gas ( $O_2$ ) produced over time.

The reaction is represented by the equation:

$$H_2O_2 + 2KI \rightarrow I_2 + 2KOH + O_2$$

The diagram also indicates the measurement of the initial concentration of hydrogen peroxide ( $[H_2O_2]_0$ ) and the initial concentration of potassium iodide ( $[KI]_0$ ).